U S WEST, Inc.
Suite 700
1020 Nineteenth Street, NW
Washington, DC 20036
202 429-3136
FAX 202 296-5157

Kenneth T. Cartmell
Executive Director - Federal Regulatory

EX PARTE OR LATE FILED

U S WEST

WRITTEN EX PARTE

RECEIVED

JAN 15 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

January 15, 1999

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
The Portals
445 12th Street, SW, TW-A325
Washington, DC 20554

RE: CC Docket Nos. 96-45 and 97-160
FCC CCB Cost Model Input Workshops

Dear Ms. Salas:

This letter transmits U S WEST comments to the Common Carrier Bureau staff on one of the topics which was covered in the December 1, 9, and 10 cost model input workshops. The issue on which U S WEST specifically provides comments is the use of book cost to current cost ratios for the development of maintenance expenses.

In accordance with Commission Rule 1.1206(a)(1), an original and one copy of this letter and the attachment are being filed with your office for inclusion in the record of this proceeding.

Acknowledgment and date of receipt of this submission is requested. A duplicate of this letter is provided for this purpose. If there are any questions, please call.

Sincerely,

Kenneth T. Cartmell

Attachments

/dc

No. of Copies rec'd_____
List ABCDE

Book Cost to Current Cost Ratios in the Development of Maintenance Expenses

The Commission has asked for comments regarding the potential use of a book cost to current cost (BC to CC) adjustment ratio in calculating operating expense factors. On the surface this approach appears to have some appeal. However, in practice it has yet to achieve any of the theoretical improvements for which it was designed. Factors are developed by dividing historical expense levels by historical investment or cost levels. These factors are then applied against projected investment levels to determine projected costs or expenses. The denominator in the factor calculation is historic investment or cost levels, yet the factor is applied to future investments to determine future expense levels. Following is a hypothetical example of this calculation:

($40 / $1000) * $950 = $38

where: $40 is historic maintenance expense
$1000 is the historic investment levels
$950 is projected investment levels
$38 is the estimated future expense levels

As illustrated from the above calculation, the projected expense level is lower than the historic level based solely on the fact that in this example projected plant costs are less than historic plant costs. In other words, a projected decrease in the cost of purchasing or placing a piece of equipment would lead to an automatic reduction in the estimated cost of maintaining that equipment. Clearly there is no direct relationship between the cost of purchasing a piece of equipment and the cost of maintaining that equipment as implied by this calculation. For this reason several regional operating companies including U S WEST sought a means to eliminate this mismatch. The BC to CC ratio was devised to correct this problem.

Theoretically, the BC to CC ratio would adjust the expense factor to eliminate the unintentional consequences of using an historical investment level to develop the factor. These historic investment levels do not correspond to the forward-looking investment level to which the factor is applied. Following is an example of how in theory a BC to CC factor should work using the above example:

Book Cost	/	Current Cost	=	BC to CC Ratio or:
$ 1000	/	$950	=	1.0526

where: 1.0526 is the current cost to book cost ratio

This BC to CC ratio would then be used to revise the above projected cost calculation as follows:

(($40 / $1000) * 1.0526) * $950 = $40

As illustrated, the BC to CC ratio eliminates any unintentional impacts caused by the differences between historic and projected investment amounts. By eliminating this mismatch between the denominator in the investment factor and the investments to which that factor is applied, the BC to CC ratio theoretically eliminates unsupportable secondary expense adjustments. In other words the BC to CC ratio would insure that all adjustments to expense factors are based on some defensible explicit adjustments as opposed to being a secondary impact of changes in investment levels that in many instances have no correlation to maintenance costs.

Although theoretically sound, the implementation of the BC to CC ratio as it exists in the models today actually increases the mismatch between projected and historic investment levels. As opposed to eliminating unintentional distortions in the expense calculation, current applications of the BC to CC ratio frequently magnify these distortions. As illustrated above, the objective of the BC to CC ratio is to match the investment used to calculate the factor to the investment to which that factor is applied. This creates symmetry in the calculation, which increases its accuracy by eliminating unintentional and unsupportable implicit adjustments to the factor. However, the BC to CC ratios proposed for use in these forward-looking models actually increase this distortion. This result is attributable to the fact that the projected or current cost calculation used in the development of factors is not even remotely related to the current costs developed by the forward-looking models to which the factors are applied.

The current costs used in the denominator in the BC to CC ratio are generally developed using a reproduction cost approach. Reproduction costs are the amount the company would spend to replace the existing technology with identical technology at current prices and placement costs. It is calculated by applying telephone plant index factors to existing investment levels. This means of developing a current cost does not even remotely replicate the forward-looking investment amounts produced by forward-looking economic models or TELRIC models. The models calculate investment using a replacement cost approach. Replacement costs assume that all the plant is replaced using the currently available technology and currently used placement techniques. All the existing technology used in the network is assumed to be replaced by modern facilities. This approach is significantly different than the reproduction cost approach used in developing BC to CC ratios. Again, there is a mismatch between the investments used to develop the factors and the investments to which those factors are applied.

Factors based on current costs are designed for use in TELRIC and TSLRIC models to estimate expenses as functions of forward-looking investments, and forward-looking investments include the productivity that is embodied in today's technology. In cost modeling jargon, costs that include the productivity that is embodied in today's technology are called "replacement costs." In contrast, "reproduction costs" do not include advances in technology, but assume that the older vintages of plant are kept in the network without improvement. TPIs are designed to estimate reproduction costs. As such, using TPI's to derive factors for use in a forward-looking model is inconsistent with how these factors are used.

Following is an example of the new calculation:

$$\frac{\text{Historic Expense}}{\text{Historic Investments}} * \frac{\text{Historic Investment}}{\text{Reproduction Cost}} * \text{Replacement Cost} = \text{Projected Expense}$$

Simplified the new calculation is:

$$\frac{\text{Historic Expense}}{\text{Reproduction Cost}} * \text{Replacement Cost} = \text{Projected Expense}$$

Again there is a mismatch between the investment used in the denominator (i.e. reproduction cost) and the investment to which the factor is applied (i.e. replacement costs). In essence this new approach simply replaces the historic investments used in the original calculation with a reproduction cost derived using the telephone plant index.

The question then becomes is the reproduction cost used in developing the BC to CC factor a better representation of the replacement costs derived from the forward-looking models than the historic investments used in the original calculation. No one can argue that both represent a mismatch. The issue becomes which mismatch creates the greatest distortion.

It is U S WEST's experience that a BC to CC ratio based on reproduction costs derived using a telephone plant index creates a greater distortion than using historic investment levels. This is especially true regarding outside plant costs. The reproduction cost for outside plant investment using the TPI is less representative of the replacement costs derived by the models than historic costs. For instance the TPI would suggest that outside plant costs would be 141% higher if the plant was replaced today using the same technology. Our models generally show that the cost of replacing these facilities would be slightly less if new technologies were employed.

Again let's return to the above example. As illustrated, the amount of maintenance expense was arbitrarily reduced from $40 to $38 by the mismatch between the historic investment used in the denominator (i.e. $1000) and the replacement costs to which it was applied (i.e. $950). Now lets assume that the reproduction costs is $1400, based on the outside plant reproduction cost factor of 141% that was derived using the telephone plant index. The new maintenance expense would be calculated as follows:

$$(\$40 / \$1000) * (\$1000 / \$1400) * \$950 = \$27.14$$

where:

$40 is historic maintenance expense
$1000 is historic investment
$950 is the projected replacement costs
$1400 is the projected reproduction costs

As illustrated above, the current costs or replacement costs (i.e. $1400) used in the BC to CC ratio is less representative of the replacement costs (i.e. $950) derived by the models

than the historic investment of $1000. The two-dollar distortion that occurred when historic costs were used in the denominator increases to more than $12 when the reproduction cost is substituted into the equation. The distortion created by the mismatch increases when the BC to CC ratio is used. The size of the distortion or unjustified reduction in maintenance expense has also been exacerbated.

U S WEST does not have difficulty with the concept of a book cost to current cost adjustment in the determination of expense factors. It does not, however, believe that substituting one mismatch in investment for another mismatch achieves the objective of using a BC to CC ratio, unless it can be shown that the substitute investment is more reflective of the investment being modeled than the historic book costs. Reproduction costs have never been shown to meet this objective. The best course would be to use actual expenses in forward-looking models and change them for explicit reasons, such as the application of explicit cost savings to reflect the change in base years or the move to a forward-looking environment. This would preclude changes in investments that appear as implicit gains in productivity, but are actually spurious changes caused by the mechanical application of investment based expense factors.

If the FCC believes historic costs adjusted to current costs is a reasonable means of developing TELRIC/TSLRIC investments then there is no reason to have replacement cost models. All costs can be derived directly by adjusting book investments by the appropriate TPI's for the period of time since they were originally placed in service. If the FCC believes this is not an appropriate means of developing forward-looking costs then it must also reject this approach to developing current costs to use in factor development. The current costs used in the BC to CC ratio must be reflective of the current or future costs derived by the TELRIC models. Reproduction costs derived using historic investment levels do not meet this objective.

If the FCC believes that productivity and inflation need to be reflected in the development of factors it should make explicit and identifiable adjustments for these impacts. The Commission should not arbitrarily adjust the factors using a BC to CC ratio that has no relationship to the current or forward-looking costs being derived by the models. If TPI adjusted historic investment levels are not a reasonable basis for determining forward looking or TELRIC/TSLRIC investments then they can not be a reasonable basis upon which to adjust forward-looking factors. The commission should not adopt an arbitrary calculation using an approach that they themselves would not use in developing their forward-looking costs.